

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Cancelled)
2. (Currently amended) A method for improving a measurement of ~~measuring~~ fluid velocity comprising the steps of:
 - obtaining a plurality of Doppler power spectra from an ultrasound device measuring a fluid velocity, each of the Doppler velocity spectra defined by at least two peak Doppler frequencies;
 - calculating angular position of a velocity vector characterizing motion of the fluid velocity ~~each angular position calculated~~ from the at least two peak Doppler frequencies of each of the Doppler spectra;
 - ~~obtaining information about angle constancy;~~
 - determining a true angular position of the velocity vector from the calculated angular positions wherein the true angular position is determined by averaging a sum of the calculated angular positions ~~using the information about angular constancy;~~
 - adjusting said plurality of Doppler power spectra dependent upon said true angular position; and
 - determining a ~~outputting an indication of measured~~ fluid velocity based on said adjusted power spectra. ~~dependently upon the determining.~~

3. (Currently amended) The method according to claim 2, further comprising the step of determining peak Doppler frequency errors in said power spectra.

4. (Original) The method according to claim 3, wherein each of the peak Doppler frequency errors is determined by minimizing a difference between a corresponding one of the calculated angular positions of the velocity vector and the determined true angular position of the velocity vector.

5. (Currently amended) The method according to claim ~~[[2]]~~ 3, further comprising the step of determining true peak Doppler frequencies from the peak Doppler frequency errors and the peak Doppler frequencies corresponding therewith.

6. (Cancelled)

7. (Original) The method according to claim 2, wherein the Doppler power spectra obtaining step is performed over a given time period.

8. (Cancelled)

9 (Currently amended) A method for improving measurement of a measuring fluid velocity comprising the step of:

obtaining a plurality of Doppler power spectra from an ultrasound device measuring a fluid velocity, each of the Doppler velocity spectra defined by at least two peak Doppler frequencies;

~~determining true peak Doppler frequencies from the peak Doppler frequency errors and the peak Doppler frequencies corresponding therewith;~~

calculating angular positions of a velocity vector characterizing motion of the fluid velocity from the Doppler power spectra, each angular position calculated from the at least two peak Doppler frequencies of each of the Doppler spectra;

determining a true angular position of a velocity vector from the calculated angular positions by averaging a sum of the calculated angular positions;

determining true peak Doppler frequencies from the peak Doppler frequency errors and the peak Doppler frequencies corresponding therewith by subtracting the peak Doppler frequency errors from corresponding ones of the peak Doppler frequencies; and

determining outputting an adjusted indication of measured fluid velocity dependent upon ~~dependently upon the determined true angular position; wherein the true peak Doppler frequencies are determined by subtracting the peak Doppler frequency errors from corresponding ones of the peak Doppler frequencies.~~

10. (Original) The method according to claim 2, wherein the fluid comprises an ultrasound scattering fluid.

11. (Original) The method according to claim 2, herein the fluid comprises blood.

12-21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Currently amended) An ultrasound system for measuring fluid velocity, the system comprising:

an ultrasound device for measuring a fluid velocity and obtaining a plurality of Doppler power spectra, each of the Doppler spectra defined by at least two peak Doppler frequencies;

means for calculating angular positions of a velocity vector characterizing motion of the fluid flow, each angular position calculated from the at least two peak Doppler frequencies of each of the Doppler flow spectra; and

means for determining a true angular position of the velocity vector from the calculated angular positions by averaging a sum of the calculated angular positions;

means for determining true peak Doppler frequencies from the peak Doppler frequency errors and the peak Doppler frequencies corresponding therewith by subtracting the peak Doppler frequency errors from corresponding ones of the peak Doppler frequencies; and

means for determining an adjusted-measured fluid velocity dependent upon the true peak Doppler frequencies using information about angular constancy.

26. (Original) The ultrasound system according to claim 25, further comprising means for determining peak Doppler frequency errors.

27. (Original) The ultrasound system according to claim 26, wherein each of the peak Doppler frequency errors is determined by minimizing a difference between a

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corresponding one of the calculated angular positions of the velocity vector and the determined true angular position of the velocity vector.

28. (Cancelled)

29. (Cancelled)

30. (Original) The ultrasound system according to claim 25, wherein the Doppler power spectra is obtained over a given period of time.

31. (Cancelled)

32. (Cancelled)

33. (Original) The ultrasound system according to claim 25, wherein the fluid comprises an ultrasound scattering field.

34. (Original) The ultrasound system according to claim 25, wherein the fluid comprises blood.